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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/411,322	10/04/1999	TAKUYA MONJU	104472	8145

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EXAMINER

SHEWAREGED, BETELHEM

ART UNIT PAPER NUMBER

1774

DATE MAILED: 04/04/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/411,322

Applicant(s)

MONJU ET AL.

Examiner

Betelhem Shewareged

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Applicant's response filed on 01/21/2003 has been fully considered. Claims 1-16 are pending, and claims 1-12 are withdrawn from consideration as non-elected invention.

#### ***Claim Rejections - 35 USC § 103***

2. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugita et al. (US 6,174,607) in view of Kitamura et al. (US 5,279,884) and Daems et al. (US 6,156,416).

Sugita discloses a thermal transfer recording medium having a support layer, an ink layer and a layer that is used as a release layer (release layer hereinafter) between the support and the ink layer (col. 3 lines 30-59). The claimed solvent-resistance layer is equivalent to the release layer. The release layer is made of polyethylene wax or polyester resin. Even though Sugita does not teach a combination of polyethylene wax and polyester resin, it would be obvious to combine both polyethylene wax and polyester resin so as to provide a layer having the same effect. *In re Crockett*, 126 USPQ 186, It is obvious to combine separately taught prior art ingredients which perform the same function; it is logical that they would produce the same effect and supplemental each other. Furthermore, the polyethylene wax is not in a molten state because Sugita does not expressly disclose a molten polyethylene wax.

Sugita teaches the addition of other resins into the ink layer. It would have been obvious to add a ketone resin, because the use of an ink composition having a ketone

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resin and polyethylene wax is conventional in the thermal transfer recording medium art. (See Kitamura (US 5,279,884), col. 9, line 2-20).

The process used for forming Sugita's transfer medium is applying a composition having a solvent for forming the release layer on the substrate, and evaporating the solvent, further applying a second composition having a solvent for forming the ink layer on the release layer, and evaporating the solvent (col. 6, lines 21-27).

Sugita fails to disclose methyl ethyl ketone as the solvent used for preparing the composition for the release layer. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use methyl ethyl ketone as the solvent that is used to make the composition for the release layer because methyl ethyl ketone is well known solvent in the transfer medium art (see *Daems Example 3 in col. 11*).

### ***Response to Arguments***

3. Applicant's argument is based on that Sugita teaches a release layer made of polyethylene wax **or** polyester resin. In fact, Sugita fails to teach a release layer made of polyethylene wax **and** polyester resin, and neither Kitamura nor Daems remedy the deficiencies of Sugita. The above argument is not persuasive for the following reason.

In the previous rejection the examiner used Kitamura to show the teaching of the addition of ketone resin into the ink layer, and the examiner used Daems to show the teaching of the use of methyl ethyl ketone as the solvent to make the composition of the release layer. Neither Kitamura nor Daems are presented to teach that the polyethylene wax **and** polyester resin are used to make the release layer. However, the

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examiner showed that rather than using either the polyethylene wax **or** the polyester resin, it would be obvious to combine or use **both** polyethylene wax **and** polyester resin of Sugita in order to provide a layer having the same effect. See *In re Crockett*, 126 USPQ 186, It is obvious to combine separately taught prior art ingredients which perform the same function; it is logical that they would produce the same effect and supplemental each other.

For the above reason, applicant's argument is not found persuasive and claims 13-16 stand rejected.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 703-305-0389. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 703-308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

CYNTHIA H. KELLY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700



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April 2, 2003.